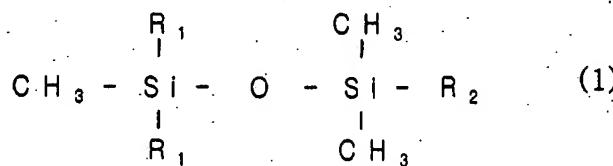


Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application.

Listing of Claims:

1. (currently amended): A silalkylene-siloxane ~~silicone~~ hyper-branched polymer surfactant prepared by polymerizing monomers represented by a chemical formula (1) and including a hydrophobic group and a hydrophilic group;

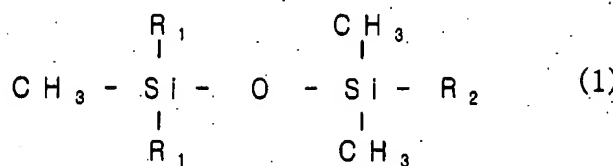


where R_1 denotes a vinyl group and R_2 denotes hydrogen, and wherein the monomer is polymerized by polymerizing the monomer using a catalyst and a hydrosilylation method, and replacing a terminal of the polymer with a carboxyl group.

2. (currently amended): The silalkylene-siloxane ~~silicone~~ hyper-branched polymer surfactant as claimed in claim 1, wherein silalkylene-siloxane ~~silicone~~ of which a terminal is replaced with a carboxyl group, is a backbone of the silalkylene-siloxane ~~silicone~~ hyper-branched polymer surfactant.

3. (currently amended): A method of preparing a silalkylene-siloxane ~~silicone~~ hyper-branched polymer surfactant, comprising;
 preparing dimethyl silanol by hydrolyzing dimethyl chlorosilane;

preparing a monomer represented by a chemical formula (1) of methyl divinyl siloxy dimethyl silane by reacting dimethyl silanol with divinyl methyl chlorosilane,



where R₁ denotes a vinyl group and R₂ denotes hydrogen; and

preparing hyper-branched polysiloxo silane by polymerizing the monomer,

wherein the monomer is polymerized by polymerizing the monomer using a catalyst and a hydrosilylation method, and replacing a terminal of the polymer with a carboxyl group.

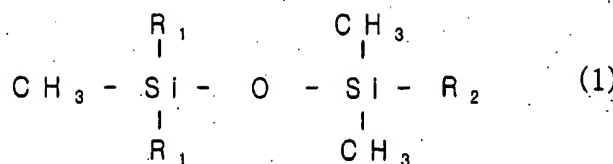
4. (original): The method of claim 3, wherein the dimethyl silanol and divinyl chlorosilane are reacted with each other at about a 1:1 molar ratio.

5. (cancelled).

6. (original): The method of claim 5, wherein the catalyst includes platinum.

7. (original): The method of claim 3, wherein the polymerizing is carried out using the R₁ and R₂ group of the monomer as reacting groups.

8. (currently amended): A rinsing solution comprising a silalkylene-siloxane ~~siloxane~~ hyper-branched polymer surfactant prepared by polymerizing a monomer represented by a chemical formula (1) and de-ionized water, the surfactant including silalkylene-siloxane ~~siloxane~~ of which a terminal is replaced with a carboxyl group as a main backbone;

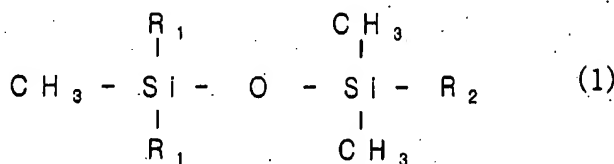


where R_1 denotes a vinyl group and R_2 denotes hydrogen, and wherein the monomer is polymerized by polymerizing the monomer using a catalyst and a hydrosilylation method, and replacing a terminal of the polymer with a carboxyl group.

9. (currently amended): A method of rinsing a semiconductor device comprising:

forming a photoresist pattern on a semiconductor substrate by selectively exposing a photoresist film and then developing the photoresist film to selectively remove portions of the photoresist film;

providing a solution onto the photoresist pattern and the semiconductor substrate, where the solution includes (a) a silalkylene-siloxane silicone hyper-branched polymer surfactant which includes silalkylene-siloxane silicone of which a terminal is replaced with a carboxyl group as a main backbone, the surfactant being prepared by polymerizing a monomer represented by a chemical formula (1) and (b) de-ionized water,



wherein, R_1 denotes a vinyl group and R_2 denotes hydrogen, wherein the monomer is polymerized by polymerizing the monomer using a catalyst and a hydrosilylation method, and replacing a terminal of the polymer with a carboxyl group;

using the solution to separate a developing solution and photoresist residues which remain on the semiconductor substrate and the photoresist pattern from the semiconductor substrate and the photoresist pattern; and removing the separated developing solution and the photoresist residues.